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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,072	03/03/2004	Hideyuki Kakinuma	4296-171 US	4211

7590 08/03/2007
Mathews, Collins, Shepherd & McKay, P.A.
Suite 306
100 Thanet Circle
Princeton, NJ 08540

EXAMINER

DESAI, ANISH P

ART UNIT	PAPER NUMBER
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1771

MAIL DATE	DELIVERY MODE
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08/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/792,072	KAKINUMA ET AL.	
	Examiner	Art Unit	
	Anish Desai	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments filed on 05/11/07 in response to Office Action dated 02/15/07 have been fully considered.
2. Claims 1-12 are pending. Claim 12 is withdrawn from consideration. Support for amended claims is found in the specification.
3. The 35 USC Section 103 rejection based on Haardt et al. (US 5,180,628) in view of Tomoaki et al. (JP 2000-226561) are withdrawn in view of the present amendment and response. Haardt does not teach or suggest that the hotmelt layer remains exposed on the back surface as required by presently amended claims. However, upon further consideration a new ground of rejection is made over Bohm et al. (US 2003/0008137A1) in view of Tomoaki et al. (JP 2000-226561).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohm et al. (US 2003/0008137A1) in view of Tomoaki et al. (JP 2000-226561) (English translation previously provided by the Examiner).

With respect to claims 1, 4, 7, and 8, Bohm discloses a self-adhesive article for mechanical protection of painted plastic mounted parts of automobile comprising a backing material in a film form whose outer side is laminated with a layer of knitted

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fabric and whose inner side is a pressure-sensitive adhesive through the application of a self-adhesive composition (abstract). Additionally, Bohm discloses that the adhesive can be applied from the melt (0039). Regarding claims 1 and 8, the backing of Bohm is equated to the outer layer material.

With respect to claims 1 and 8 Bohm is silent with respect to teaching the hot-melt having (A) an amorphous poly-alpha-olefin (APAO) having a melting viscosity in the range of 500-100,000 mPa*s/190°C, (B) a tackifier resin having a softening point of not lower than 110°C, (C) a polypropylene (PP) wax having a melting point of not lower than 120°C, and weight ratio of A/C in the range of 100/50 to 100/100 (i.e. 2 to 1) (claims 1 and 8) and weight ratio of A/B in the range of 100/10 to 100/100 (i.e. 10 to 1) (claims 4 and 8). However, Tomoaki discloses a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time (page 9). The hot-melt adhesive of Tomoaki comprises 50-90 wt% amorphous polyolefin polymer, 5-44 wt% of a crystalline polypropylene wax with a softening point of 120°C or higher, and 1-20 wt% of tackifying resin (page 2). The amorphous polyolefin of Tomoaki has a viscosity of 1,500 to 50,000 cps at 190°C, which converts to 1,500 to 50,000 mPa*s (1 cp = 1 mPa*s). With respect to the limitation of tackifier resin having softening point of not lower than 110°C, it is noted that Tomoaki discloses the same types of tackifier resins (e.g. terpene, modified terpene, hydrogenated resins such as hydrogenated terpene) (page 16-17) as disclosed by the applicant on pages 11-12 of the specification. Therefore, it is reasonable to presume that the tackifying resin of Tomoaki has a

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softening point of not lower than 110°C (*In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). With respect to the claimed weight ratio of APAO (A) to PP wax (C) of 100/50 to 100/100, as previously disclosed the hot-melt adhesive of Tomoaki comprises 50-90 wt% APAO polymer, 5-44 wt% of a crystalline PP wax, which reads on said weight ratio (e.g. 50 wt% APAO and 25 wt% of PP wax = 100/50 weight ratio). Regarding, the claimed weight ratio of the APAO (A) to the tackifier resin (B) of 100/10 to 100/100, as previously disclosed the hot-melt adhesive of Tomoaki comprises 50-90 wt% APAO and 1-20 wt% of the tackifier resin, which reads on said weight ratio (e.g. 50 wt% of APAO and 5 wt% of tackifier resin = 100/10 wt ratio). It is noted that the primary reference of Bohm discloses that the adhesive composition can be applied from the melt (0039) and the secondary reference of Tomoaki describes the advantages such as high flexibility, low possible coating temperature etc. of using hot-melt adhesive of his invention. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the hot-melt adhesive of Tomoaki in the invention of Bohm, motivated by the desire to use a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time.

Regarding claims 2 and 10, the backing of Bohm is equated to a surface layer.

Regarding claims 3 and 11, it is noted that Bohm discloses that the film layer may be foamed (0018). Further, the polymers used to form the backing of Bohm are polyolefin polymers (0016). Hence, the foamed polyolefin film layer of Bohm reads on the polyolefin foam as claimed. Moreover, Bohm discloses that the knitted fabric can

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be joined to the backing using hot-melt adhesive (0031). Thus, Bohm discloses a fabric layer (surface layer material)/hot-melt adhesive/polyolefin foam/self-adhesive composition. As previously noted Bohm is silent with respect to teaching of hotmelt adhesive as presently claimed that is applied to the surface of the polyolefin foam layer. However, the invention of Tomoaki is previously disclosed. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the hot-melt adhesive of Tomoaki in the invention of Bohm, motivated by the desire to use a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time.

Regarding claim 5, Bohm discloses adhesive with thickness of 25 micrometer (0047).

Regarding claim 6, the recitation of "not more than 30 weight % of a polyolefin" is interpreted as not having (i.e. zero wt%) polyolefin because the recitation "not more than 30 weight %" includes zero. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the hot-melt adhesive of Tomoaki in the invention of Bohm, motivated by the desire to use a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time.

With respect to claim 9 the weight ratio of APAO (A) to PP wax (C) of 100/50 to 100/80, as previously disclosed the hot-melt adhesive of Tomoaki comprises 50-90 wt% amorphous polyolefin polymer and 5-44 wt% of a crystalline polypropylene wax.

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Additionally, with respect to the weight ratio of APAO (A) to the tackifier resin (B) of 100/30 to 100/60, the hot-melt adhesive of Tomoaki comprises 50-90 wt% amorphous polyolefin polymer and 1-20 wt% of tackifier resin (e.g. 50 wt% APAO and 20 wt% of tackifier resin = 100/40 wt ratio). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the hot-melt adhesive of Tomoaki in the invention of Bohm, motivated by the desire to use a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

APD
/A. D./

/Terrel Morris/
Terrel Morris
Supervisory Patent Examiner
Group Art Unit 1771